

Amendments to the Claims

1-16. (Previously canceled)

17. (Previously presented) A method of spraying an aerosol spray, comprising:

providing a grounded nozzle and an electrode separated by a predetermined axial distance;

providing a grounded conductive cover around said nozzle and said electrode, said cover having an opening that allows a directed spray to exit;

placing said electrode at a high electrical potential relative to said nozzle, thereby creating an electric field between said nozzle and said electrode;

ejecting a liquid or powder from said nozzle towards said electrode to atomize the ejected liquid or powder into aerosol droplets or particles so that in the applied electric field between said nozzle and said electrode, said aerosol droplets or particles obtain an induced electric charge;

after the aerosol droplets or particles pass the vicinity of said electrode, forming a directed spray of aerosol droplets or particles having a desired shape and with sufficient momentum and electric charge so that said directed spray of aerosol droplets or particles is deposited on a target.

18. (Previously canceled)

19. (Previously presented) The method of claim 17 wherein said aerosol droplets or particles are at a predetermined distance from said electrode.

20. (Previously presented) The method of claim 17, wherein said liquid or powder has an electrical resistivity in the range of 200 Ohm-cm to 40 kilo-Ohm-cm.

21. (Previously presented) The method of claim 17, further comprising:
providing an electrical connection to said electrode; and
providing an insulating electrode holder surrounding said electrical connection to said electrode, said insulating electrode holder having a concave shape to keep said electrode holder dry and thereby preventing formation of a continuous wetted surface between said electrode and a grounded surface.
22. (Previously presented) The method of claim 21, wherein said electrode holder comprises a material having a low force of attraction for said droplets or particles.
23. (Previously presented) The method of claim 17 wherein said providing a grounded nozzle and an electrode separated by a predetermined distance further comprises:
providing a grounded nozzle and an electrode separated by a predetermined distance in a direction of spraying.
24. (Previously presented) The method of claim 17 wherein said aerosol droplets or particles obtain an induced electric charge by direct contact with said electrode.
25. (Previously canceled)
26. (Previously presented) The method of claim 17 wherein said predetermined axial distance is equal to or greater than approximately 0.3 inches.
27. (Previously presented) The method of claim 17 wherein said predetermined axial distance is between approximately 0.3 inches and approximately 1.5 inches.
28. (Previously presented) The method of claim 17 wherein said predetermined axial distance is between approximately 0.8 inches and approximately 1.4 inches.

29. (Previously presented) The method of claim 17 wherein said predetermined axial distance is approximately 1.1 inches.

30. (Previously presented) The method of claim 17 wherein the polarity of the induced electric charge on said aerosol droplets or particles is the same as the polarity of said electrode.

31. (Previously presented) A method of spraying an aerosol spray, comprising:

providing a grounded nozzle and an electrode separated by a predetermined axial distance;

placing said electrode at a high electrical potential relative to said nozzle, thereby creating an electric field between said nozzle and said electrode;

ejecting a liquid or powder from said nozzle towards said electrode to atomize the ejected liquid or powder into aerosol droplets or particles so that in the applied electric field between said nozzle and said electrode, said aerosol droplets or particles obtain an induced electric charge;

after the aerosol droplets or particles pass the vicinity of said electrode, forming a directed spray of aerosol droplets or particles having a desired shape and with sufficient momentum and electric charge so that said directed spray of aerosol droplets or particles is deposited on a target;

providing an electrical connection to said electrode; and

providing an insulating electrode holder surrounding said electrical connection to said electrode, said insulating electrode holder having a concave shape to keep said electrode holder dry and thereby preventing formation of a continuous wetted surface between said electrode and a grounded surface.

32. (Previously presented) The method of claim 31, wherein said electrode holder comprises a material having a low force of attraction for said droplets or particles.
33. (Currently amended) The ~~apparatus according to~~ method of claim 31, further comprising:
a manifold;
a second nozzle mounted on said manifold; and
wherein said electrode has a shape adapted to provide the same distance between said electrode and said nozzle and said second nozzle.
34. (Currently amended) The ~~apparatus according to~~ method of claim 31, further comprising:
providing a grounded conductive cover around said nozzle and said electrode, said cover having an opening that allows a directed spray to exit.
35. (Previously presented) The method of claim 31, wherein said liquid or powder has an electrical resistivity in the range of 200 Ohm-cm to 40 kilo-Ohm-cm.
36. (Previously presented) The method of claim 31 wherein the polarity of the induced electric charge on said aerosol droplets or particles is the same as the polarity of said electrode.
37. (Previously presented) The method of claim 31 wherein said aerosol droplets or particles obtain an induced electric charge by direct contact with said electrode.